

## TMDL Requirements in Stormwater Permits

July 11, 2012

### Fact Sheet Template

#### Water Quality Based Effluent Limitations based on TMDL Wasteload Allocations

**General Rationale** - This Order includes water quality based effluent limitations (WQBELs) and a process for documenting compliance with them consistent with the assumptions and requirements of wasteload allocation(s) established with total maximum daily loads (TMDLs) to attain water quality standards. Federal regulations [40 CFR 122.44(d)(1)(vii)(B)] require inclusion of "Effluent limits ... consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by USEPA." Federal regulations [40 CFR 122.44(k)(2)&(3)] allow non-numeric WQBELs, expressed in the form of best management practices (BMPs) with justification. Accordingly, WQBELs based on wasteload allocation(s) may be expressed through a number of different metrics depending on the assumptions and requirements of the wasteload allocation(s), including:

- a. Numeric limits
  - 1. Numeric limit equal to the associated water quality standard(s) and/or TMDL numeric target(s)
  - 2. Numeric limit equal to the wasteload allocation(s)
  - 3. Numeric limit based on translation of the wasteload allocation(s) into another time scale based on discharge characteristics
  - 4. Numeric limit(s) based on translation of the wasteload allocation(s) into components associated with categorical or specific sources and/or geographic (drainage) area(s)
  - 5. Numeric limit(s) based on translation of the wasteload allocation(s) into one or more surrogate measures
  - 6. Numeric limit(s) based on benchmark value(s) or performance measure(s) associated with BMPs
- b. Non-numeric limits
  - 1. Non-numeric limit requiring implementation of specific BMPs
  - 2. Non-numeric limit requiring a BMP-based compliance plan

Dependent on the specific wasteload allocation(s), WQBELs may be expressed using multiple metrics, and Permittees may be allowed to demonstrate compliance using more than one of the available metrics. All numeric or non-numeric limits must include a compliance date or schedule consistent with the established wasteload allocation(s) and TMDL Implementation Plan and federal regulations [40 CFR § 122.47]. The compliance schedule may allow phasing of implementation and may include interim numeric limits or narrative requirements.

Federal regulations [40 CFR 122.44(i)] require specification of monitoring requirements necessary to determine compliance with effluent limitations. Where effluent limits are specified as BMPs, the permit should also specify the monitoring necessary to assess if the expected load reductions attributed to BMP implementation are achieved (e.g., BMP

performance data). The permit should also provide a mechanism to make adjustments to the required BMPs as necessary to ensure their adequate performance.

**Specific Rationale** - These WQBELs are consistent with the assumptions and requirements identified in the TMDL Implementation Plans adopted with the TMDLs. Applicable TMDLs include the following:

- a. XXXXX TMDL(s)
  - i. Brief summary of the TMDL(s) and wasteload allocation(s) with link(s) to specific web page where TMDL documentation can be found. Pertinent information includes:
    - TMDL Basin Plan Amendment: Resolution No. RXXXXXXX
    - TMDL approval date
    - Waterbody(s)
    - Applicable water quality standard(s) and associated TMDL numeric target(s)
    - Pollutant(s) and/or stressor(s)
    - Watershed management area(s)
  - ii. Wasteload allocation(s) and compliance date(s)
  - iii. Responsible Permittee(s) and jurisdictional area(s)
  - iv. Relevant wasteload allocation(s) assumptions and requirements
  - v. Rationale for numeric or non-numeric WQBEL(s)
  - vi. Rationale for compliance schedule(s) and adaptive implementation (if relevant)
  - vii. Rationale for monitoring and reporting requirements
  - viii. Rationale of any other requirements (e.g., special studies)

Commented [GB1]: Replace.

b. YYYYY TMDL

...

*Other points to consider include:*

- *Non-numeric limit action levels associated with BMP implementation*
- *Whether submittals may be approved by the Executive Officer through compliance evaluation or require Board approval via non-permit action or permit amendment (e.g., a submitted plan to demonstrate manner and means of compliance with permit requirements can be approved by the Executive Officer, but a plan that serves as permit requirements requires Board approval via permit amendment. The latter should only be used in the first permit term of implementing a wasteload allocation, since update, review, and revisions to a plan should occur via application for permit reissuance and the reissuance process.*
- *How to ensure timely, recurring, and consistent assessment of controls and BMPs to prevent or reduce loads of specific pollutants and establish consistent performance metrics.*

## Permit Template

### ***Water Quality Based Effluent Limitations and related requirements based on TMDL Wasteload Allocation(s) and Implementation Plans***

**Provision Title** (e.g., Pollutant X Control Program)

**1. Introductory statement(s) that sets stage for subsequent requirements**

*Limit to critical information; avoid repeating background details provided in Fact Sheet.*

**2. Geographic scope and responsible Permittees** (if necessary)

*Concise statement(s) of spatial applicability of subsequent requirements, point(s) of compliance (if relevant), and specific Permittee(s) responsible for requirements (if relevant, e.g., only one or more rather than all Permittees). If relevant, call out specific exceptions or refer to subsequent requirements that have a unique geographic scope, point of compliance, and/or responsible Permittee(s).*

**3. Water Quality Based Effluent Limitations**

*If relevant, specify whether Permittees must comply with each of the WQBELs or whether they have a choice between two or more of them.*

**a. Numeric Limits** (if used)

*List numeric limit(s) and state relevant compliance applicability and determination information, including: compliance schedule(s); unique (if relevant) geographic scope, point(s) of compliance, and/or responsible Permittee(s); tracking, monitoring, record keeping, and reporting requirements; and (if relevant) special conditions or response actions that may be required or used to determine compliance or define an enforceable violation.*

**b. BMP Requirements** (if used)

*List BMP requirements and state relevant compliance applicability and determination information, including: level(s) of implementation; compliance schedule(s); unique (if relevant) geographic scope, point(s) of compliance, and/or responsible Permittee(s); tracking, monitoring, record keeping, and reporting requirements; mechanisms to demonstrate or evaluate BMP performances, and make adjustments (i.e., higher level of implementation or specific BMPs); and (if relevant) special conditions or response actions that may be required or used to determine compliance or define an enforceable violation.*

**c. BMP-Based Compliance Plan** (if used)

*State conditions and requirements that must be met or accounted for in a plan; state criteria that will be used to determine adequacy of a plan; state what must be included in plan, level of detail, and required supporting information; provide compliance*

*schedule for submittal, including interim step(s) and report(s) if plan submittal date is greater than one year from permit adoption; and explain review and approval mechanism (i.e., Executive Officer acceptance or Board approval of plan to demonstrate manner and means of compliance with permit requirements or permit amendment to account for a plan that serves as permit requirements).*

*The following is a first cut by Jason U with some edits by Tom M of a BMP-based Compliance Plan provision.*

#### **BMP-based Compliance Plan**

Permittees may propose a BMP-based Compliance Plan for RWQCB approval as an alternative WQBEL to implement the [specify pollutant(s)] TMDL wasteload allocation(s) and associated receiving water limitation subject to the following requirements. The Plan must be submitted **{by criteria acceptable to the RWQCB}**. The Plan may be stand alone or integrated into a broader watershed plan.

The Plan must describe, in detail, the specific actions that have been taken or will be taken to achieve compliance the wasteload allocation(s) and associated receiving water limitation consistent with the assumptions and requirements of the wasteload allocation(s). The Plan must include:

- a. Source Assessment: A source assessment, utilizing existing information, that identifies known and suspected urban stormwater and non-stormwater sources of the impairing pollutants in discharges from the MS4 to receiving waters. Permittees may also propose additional source assessments to aid selection and implementation of controls..
- b. Schedule: Phased implementation may be necessary to develop a viable compliance plan. The Permittees may propose schedules, including interim milestones and reporting, to promote a phased approach to compliance that may include, as appropriate, implementation in four levels of increasing effort:
  - i. Desktop Studies – desktop analysis, laboratory studies, and/or literature to identify and evaluate candidate controls;
  - ii. Pilot Projects - studies to evaluate candidate controls in strategic areas;
  - iii. Focused Scale Implementation - focused implementation of proven controls in areas where benefits are most likely to accrue; and
  - iv. Full Scale Implementation.

If they are adequately established, control measures and BMPs must be implemented at the focused or full-scale level.

- c. Identification and implementation of Control Measures or BMPs: Permittees shall identify strategies, control measures and BMPs to implement through their individual and joint stormwater management programs to address known and suspected sources of impairing pollutants; including:
  - i. Source and Treatment Control BMPs: Number, type, location, responsible agency and frequency of implementation; and
  - ii. Pollution Prevention Measures: Nature, Scope, responsible agency and timing.

- d. **Adequate Demonstration:** A qualitative or quantitative assessment, or modeling effort to demonstrate that activities and control measures will achieve applicable wasteload allocation(s) or receiving water limitations with deadlines within the permit term, including scientific, regulatory and technical sources used to support the analysis. For TMDL wasteload allocation(s) with compliance schedules beyond the Permit term, Permittees shall document the basis for the expectation that the Plan will attain interim milestones and ensure adequate progress toward achieving interim and final wasteload allocation(s) or receiving water limitations consistent with the assumptions and requirements of the TMDL.
- e. **Adaptive Management:** The Plan must include a process to determine its effectiveness and update the schedules, strategies, control measures, and BMPs as necessary to maintain progress towards achieving wasteload allocation(s) or receiving water limitations.
- f. **Monitoring and Reporting:** Monitoring, tracking, record keeping, and reporting to ensure strategies, control measures and BMPs are implemented, to evaluate their performance, and to measure attainment or progress towards attainment of wasteload allocation(s) or receiving water limitations or interim milestones. Permittees may propose integrated monitoring and reporting requirements with other applicable studies as part of a watershed plan approach.
- g. **Special Studies:** Permittees may propose to integrate special study requirements with other applicable studies as part of a watershed plan approach. They may also propose additional studies that may be used in review and potential adaptation or revision of the TMDL, wasteload allocation(s), or TMDL implementation plan(s).

#### 4. Monitoring and Reporting

*Specify monitoring and reporting to ensure strategies, control measures and BMPs are implemented, to evaluate their performance, and to measure attainment or progress towards attainment of wasteload allocation(s) or receiving water limitations or interim milestones.*

#### 5. Special Studies and Other Requirements (if applicable)

*Specify special studies and other special requirements called for by the TMDL Implementation Plan that are not accounted for elsewhere in the Permit. If appropriate, and to encourage or allow coordination of studies or collaborative studies with other entities, use the term, "Conduct, or cause to conduct, studies to ..." Also, or alternatively, state specific forums the Permittees may rely or participate on or coordinate or collaborate with. Specify schedule and reporting date(s), including interim progress reports for studies and requirements with schedules longer than one year.*

#### 6. Reopener Clause (If applicable)

*Specify conditions that may allow the Regional Water Board to reopen and modify specific permit requirements.*